

NUCLEIC ACIDS IN INNATE IMMUNITY

Until recently, innate immunity was regarded as a relatively nonspecific system designed to engulf and destroy pathogens. However, new studies show that the innate immune system is highly developed in its ability to discriminate between self and foreign entities. Understanding this mechanism can lead to therapeutic strategies based on manipulation of this previously unexploited branch of the immune system.

Drawing on the research of leading experts in this new area of immunology, *Nucleic Acids in Innate Immunity* —

- Describes the mechanism of discrimination based on pattern-recognition receptors (PRRs), including Toll-like receptors (TLRs), Nod-like receptors (NLR), and RIG-I-like receptors (RLR)
- Discusses how PRRs recognize and respond to pathogen-associated molecular patterns (PAMPs) by activating specific signaling pathways
- Focuses on the therapeutic applications of immunomodulatory DNA to prevent or treat infectious diseases, allergic disorders, and cancer
- Addresses how the immune system discriminates self and non-self RNA
- Investigates exactly what elements within DNA or RNA are recognized by the innate immune system

Providing a comprehensive review of nucleic acid recognition and regulation by the innate immune system, this seminal work reveals new directions for future research in immune modulation.



CRC Press
Taylor & Francis Group
an **informa** business
www.crcpress.com

6000 Broken Sound Parkway, NW
Suite 300, Boca Raton, FL 33487
270 Madison Avenue
New York, NY 10016
2 Park Square, Milton Park
Abingdon, Oxon OX14 4RN, UK

68253

ISBN: 978-1-4200-6825-2



www.crcpress.com